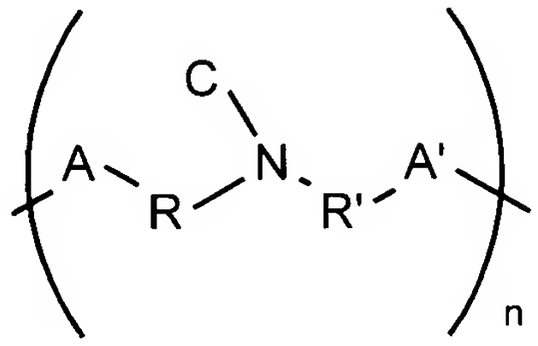
I claim:

1. A polymer containing a fatty group pendant to the polymer backbone having the formula:



where C is a saturated or unsaturated alkyl group with between about 6 and 22 carbons and R and R'are the same or different and are independently chosen from the group containing linear or branched, saturated or unsaturated, alkyl, alkenyl, alkylamine, -NH-, -NR-, or arylalkyl with 0 to 10 carbon atoms and where A and A' are the same or different and are independently chosen from the group containing

[-(C=O)O-, -O(C=O)NH-, -HN(C=O)NH-, -O-, -OH, $-CH_2OH$, $-CH_3$, -(C=O)OH, $-O((C=O)CO)_m-$, $-O((C=O)C=C)_m-$, -N(C=O)-, $-O(C=O)C_6H_4(C=O)-$, -O(C=O)D-, -OC(C-OH)D-, $-(O-SiH_2)_m-$, $-(CH_2)_1-$] where D is linear or branched, saturated or unsaturated, alkyl, alkenyl, alkylamine or alkylaryl with 0 to 10 carbon atoms, and where l and m are integers greater than zero.

2. A polymer according to claim 1 wherein A and A' are the same or different and are independently chosen from the group containing [-(C=O)O-, -O(C=O)NH-, -HN(C=O)NH-, -O-, -OH, $-CH_2OH$, CH_3, -(C=O)OH, $-O((C=O)C=C)_m-$, -N(C=O)-, $-(O-SiH_2)_m-$, $-(CH_2)_m-$] wherein m is an integer greater than zero.

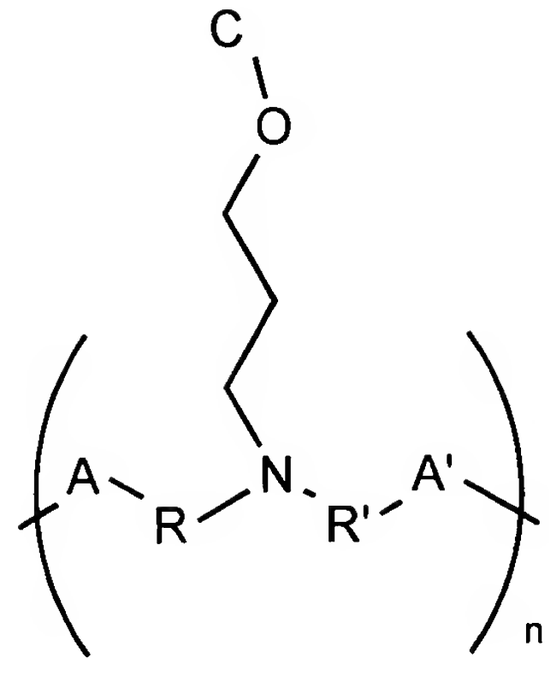
3. The polymer of claim 1 wherein the pendant fatty group has an occurrence rate of from 5 ppm to 100%.

4. A surface coating comprising a polymer according to claim 1.

5. A cast part comprising a polymer according to claim 1.

6. An extruded film or fiber comprising a polymer according to claim 1.

7. A polymer containing a fatty group pendant to the polymer backbone having the formula:



where C is a saturated or unsaturated alkyl group with between about 6 and 22 carbons and R and R'are the same or different and are independently chosen from the group containing linear or branched, saturated or unsaturated, alkyl, alkenyl, alkylamine, -NH-, -NR-, or arylalkyl with 0 to 10 carbon atoms and where A and A' are the same or different and are independently chosen from the group containing

[-(C=O)O-, -O(C=O)NH-, -HN(C=O)NH-, -O-, -OH, $-CH_2OH$, $-CH_3$, -(C=O)OH, $-O((C=O)CO)_m-$, $-O((C=O)C=C)_m-$, -N(C=O)-, $-O(C=O)C_6H_4(C=O)-$, -O(C=O)D-, -OC(C-OH)D-, $-(O-SiH_2)_m-$, $-(CH_2)_1-$] where D is linear or branched, saturated or unsaturated, alkyl, alkenyl, alkylamine or alkylaryl with 0 to 10 carbon atoms, and where l and m are integers greater than zero.

8. A polymer according to claim 7 wherein A and A' are the same or different and are independently chosen from the group containing [-(C=O)O-, -O(C=O)NH-, -HN(C=O)NH-, -O-, -OH, $-CH_2OH$, CH_3, -(C=O)OH, $-O((C=O)C=C)_m-$, -N(C=O)-, $-(O-SiH_2)_m-$, $-(CH_2)_m-$] wherein m is an integer greater than zero.

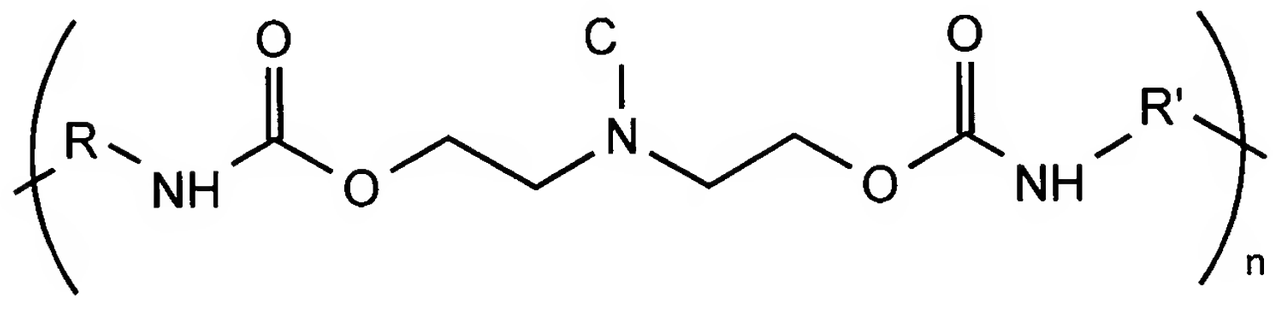
9. The polymer of claim 7 wherein the pendant fatty group has an occurrence rate of from 5 ppm to 100%.

10. A surface coating comprising a polymer according to claim 7.

11. A cast part comprising a polymer according to claim 7.

12. An extruded film or fiber comprising a polymer according to claim 7.

13. A polymer containing a fatty group pendant to the polymer backbone, said polymer having the formula:



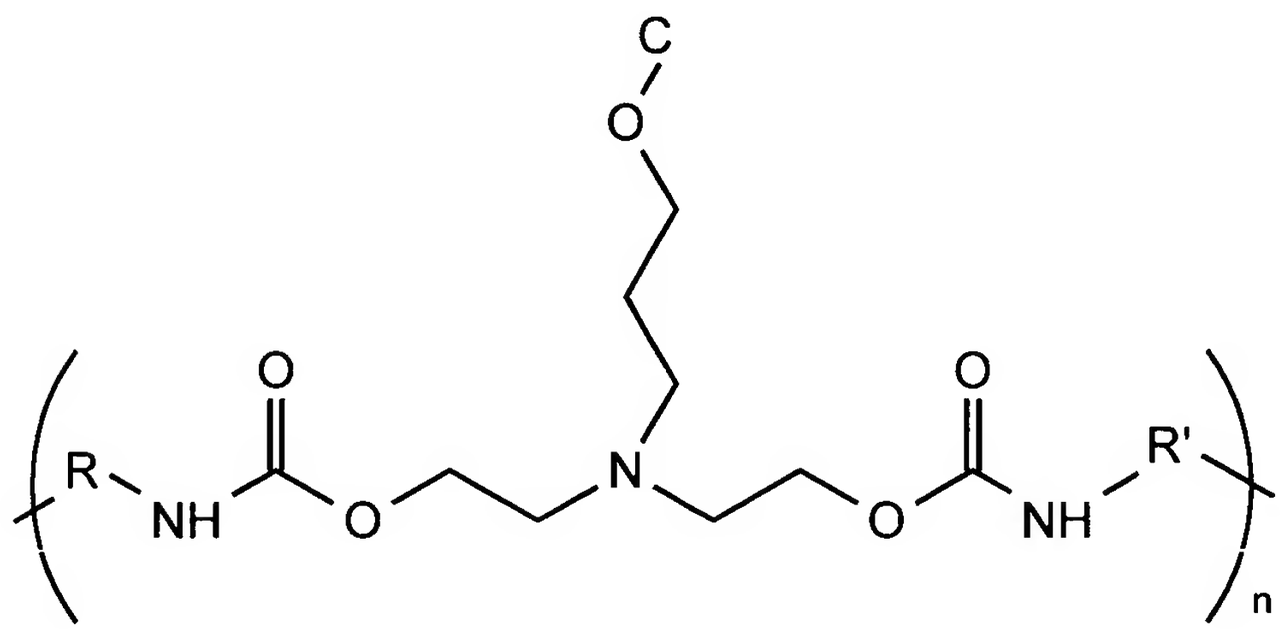
Where C is a saturated or unsaturated alkyl group with between about 6 and 22 carbons and R and R'are the same or different and are independent chosen from the group containing [-(C=O)O-, -O(C=O)NH-, -HN(C=O)NH-, -O-, -OH, -CH_2OH, CH_3, -(C=O)OH, -O((C=O)C=C)$_m$-, -N(C=O)-, -(O-SiH_2)$_m$- , -$(CH_2)_n$ -] where m is an integer greater than zero.

14. A surface coating comprising a polymer according to claim 13.

15. A cast part comprising a polymer according to claim 13.

16. An extruded film or fiber comprising a polymer according to claim 13.

17. A polymer containing a fatty group pendant to the polymer backbone, said polymer having the formula:



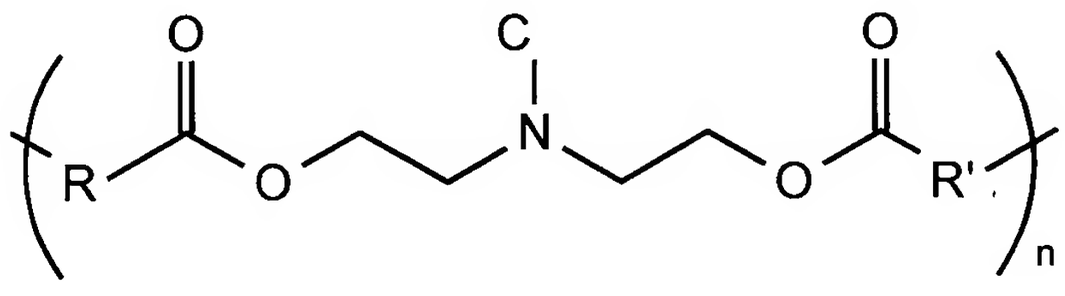
Where C is a saturated or unsaturated alkyl group with between about 6 and 22 carbons and R and R'are the same or different and are independent chosen from the group containing [-(C=O)O-, -O(C=O)NH-, -HN(C=O)NH-, -O-, -OH, -CH_2OH, CH_3, -(C=O)OH, -O((C=O)C=C)$_m$-, -N(C=O)-, -(O-SiH_2)$_m$- , -(CH_2)$_n$ -] where m is an integer greater than zero.

18. A surface coating comprising a polymer according to claim 17.

19. A cast part comprising a polymer according to claim 17.

20. An extruded film or fiber comprising a polymer according to claim 17.

21. A polymer containing a fatty group pendant to the polymer backbone, said polymer having the formula:



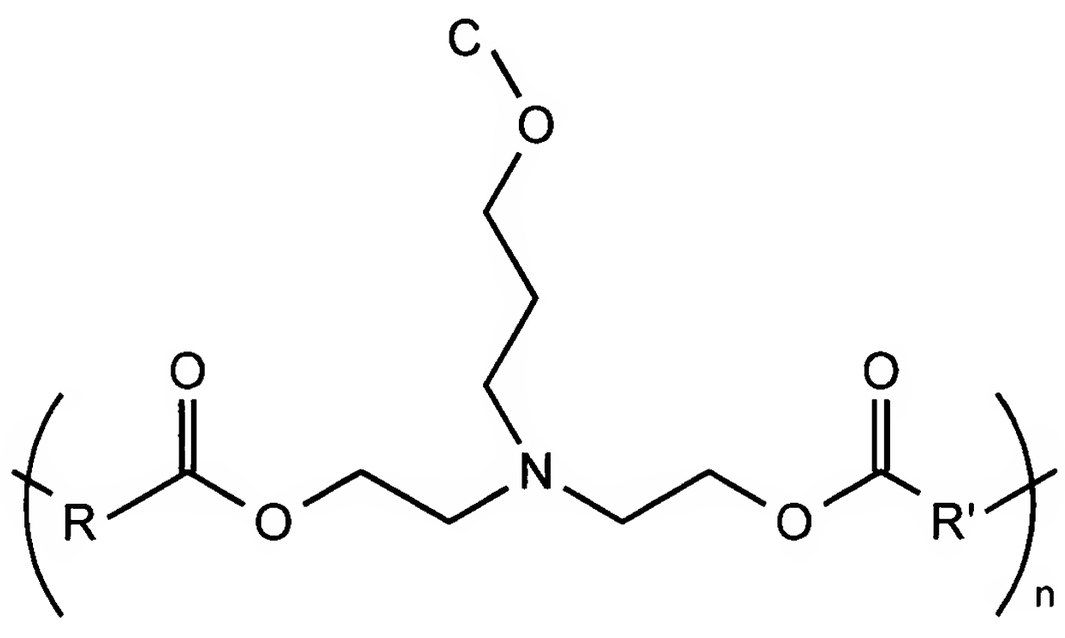
Where C is a saturated or unsaturated alkyl group with between about 6 and 22 carbons and R an R′ are the same or different and are independently chosen from the group containing [-(C=O)O-, -O(C=O)NH-, -HN(C=O)NH-, -O-, -OH, $-CH_2OH$, CH_3, -(C=O)OH, $-O((C=O)C=C)_m-$, -N(C=O)-, $-(O-SiH_2)_m-$, $-(CH_2)_n-$] where m is an integer greater than zero.

22. A surface coating comprising a polymer according to claim 21.

23. A cast part comprising a polymer according to claim 21.

24. An extruded film or fiber comprising a polymer according to claim 21.

25. A polymer containing a fatty group pendant to the polymer backbone, said polymer having the formula:



Where C is a saturated or unsaturated alkyl group with between about 6 and 22 carbons and R an R′ are the same or different and are independently chosen from the group containing [-(C=O)O-, -O(C=O)NH-, -HN(C=O)NH-, -O-, -OH,

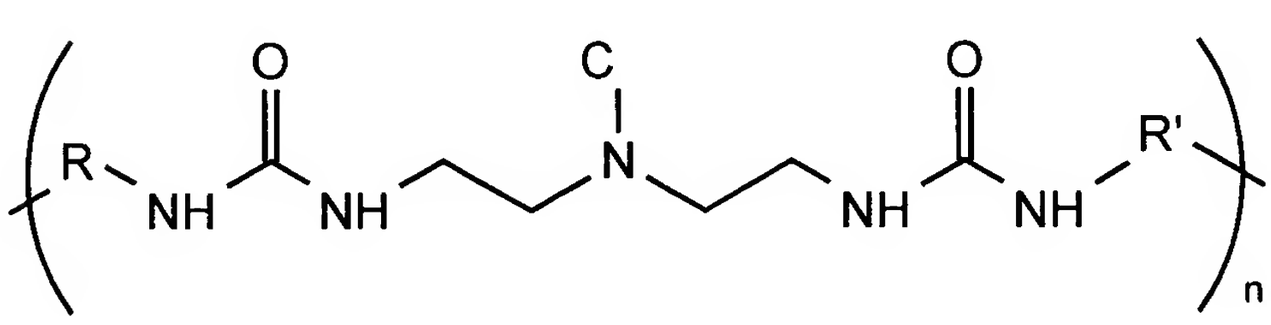
$-CH_2OH$, CH_3, $-(C=O)OH$, $-O((C=O)C=C)_m-$, $-N(C=O)-$, $-(O-SiH_2)_m-$, $-(CH_2)_n-$] where m is an integer greater than zero.

26. A surface coating comprising a polymer according to claim 25.

27. A cast part comprising a polymer according to claim 25.

28. An extruded film or fiber comprising a polymer according to claim 25.

29. A polymer containing a fatty group pendant to the polymer backbone, said polymer having the formula:



Where C is a saturated or unsaturated alkyl group with between about 6 and 22 carbons and R and R'are the same or different and are independent chosen from the group

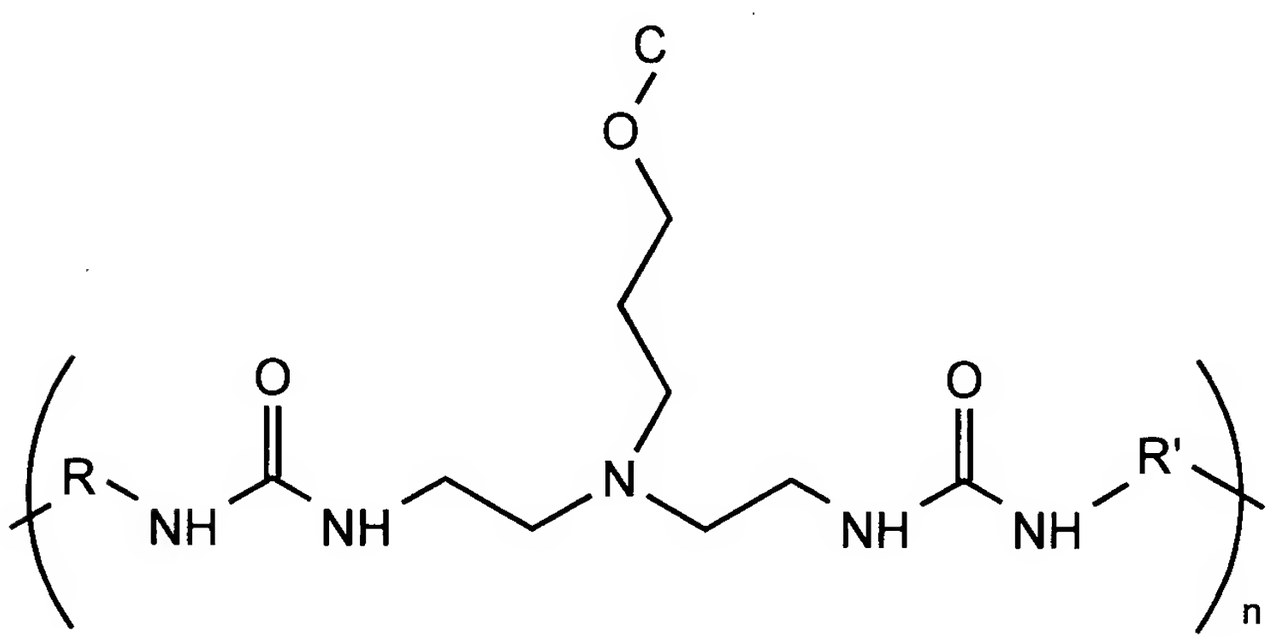
containing [-(C=O)O-, -O(C=O)NH-, -HN(C=O)NH-, -O-, -OH, -CH_2OH, CH_3, -(C=O)OH, $-O((C=O)C=C)_m-$, -N(C=O)-, $-(O-SiH_2)_m-$, $-(CH_2)_n-$] where m is an integer greater than zero.

30. A surface coating comprising a polymer according to claim 29.

31. A cast part comprising a polymer according to claim 29.

32. An extruded film or fiber comprising a polymer according to claim 29.

33. A polymer containing a fatty group pendant to the polymer backbone, said polymer having the formula:



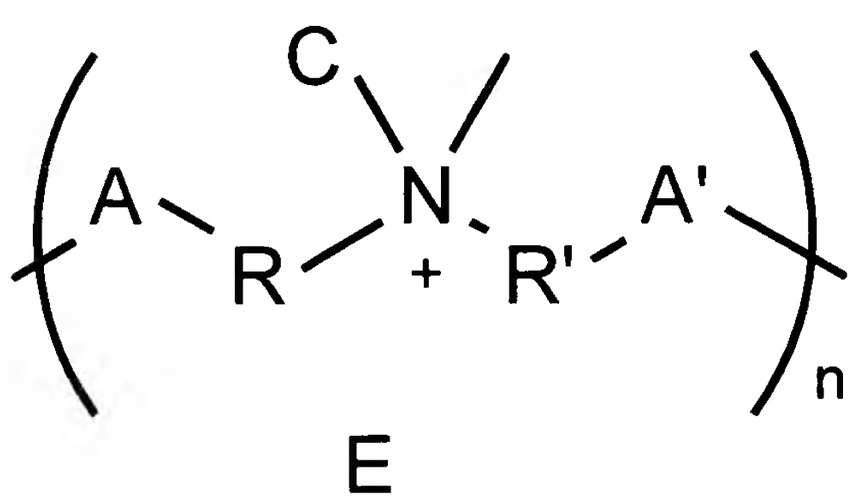
Where C is a saturated or unsaturated alkyl group with between about 6 and 22 carbons and R and R'are the same or different and are independent chosen from the group containing [-(C=O)O-, -O(C=O)NH-, -HN(C=O)NH-, -O-, -OH, -CH_2OH, CH_3, -(C=O)OH, -O((C=O)C=C)$_m$-, -N(C=O)-, -(O-SiH_2)$_m$- , -(CH_2)$_n$ -] where m is an integer greater than zero.

34. A surface coating comprising a polymer according to claim 33.

35. A cast part comprising a polymer according to claim 33.

36. An extruded film or fiber comprising a polymer according to claim 33.

37. A polymer containing a fatty group pendant to the polymer backbone having the formula:



E

where E is an anion, C is a saturated or unsaturated alkyl group with between about 6 and 22 carbons and R and R'are the same or different and are independently chosen from the group containing linear or branched, saturated or unsaturated, alkyl, alkenyl, alkylamine, -NH-, -NR-, or arylalkyl with 0 to 10 carbon atoms and where A and A' are the same or different and are independently chosen from the group containing

[-(C=O)O-, -O(C=O)NH-, -HN(C=O)NH-, -O-, -OH, $-CH_2OH$, $-CH_3$, -(C=O)OH, $-O((C=O)CO)_m-$, $-O((C=O)C=C)_m-$, -N(C=O)-, $-O(C=O)C_6H_4(C=O)-$, -O(C=O)D-, -OC(C-OH)D-, $-(O-SiH_2)_m-$, $-(CH_2)_1-$] where D is linear or branched, saturated or unsaturated, alkyl, alkenyl, alkylamine or alkylaryl with 0 to 10 carbon atoms, and where 1 and m are integers greater than zero.

38. A polymer according to claim 37 wherein A and A' are the same or different and are independently chosen from the group containing [-(C=O)O-, -O(C=O)NH-, -HN(C=O)NH-, -O-, -OH, $-CH_2OH$, CH_3, -(C=O)OH, $-O((C=O)C=C)_m-$, -N(C=O)-, $-(O-SiH_2)_m-$, $-(CH_2)_m-$] wherein m is an integer greater than zero.

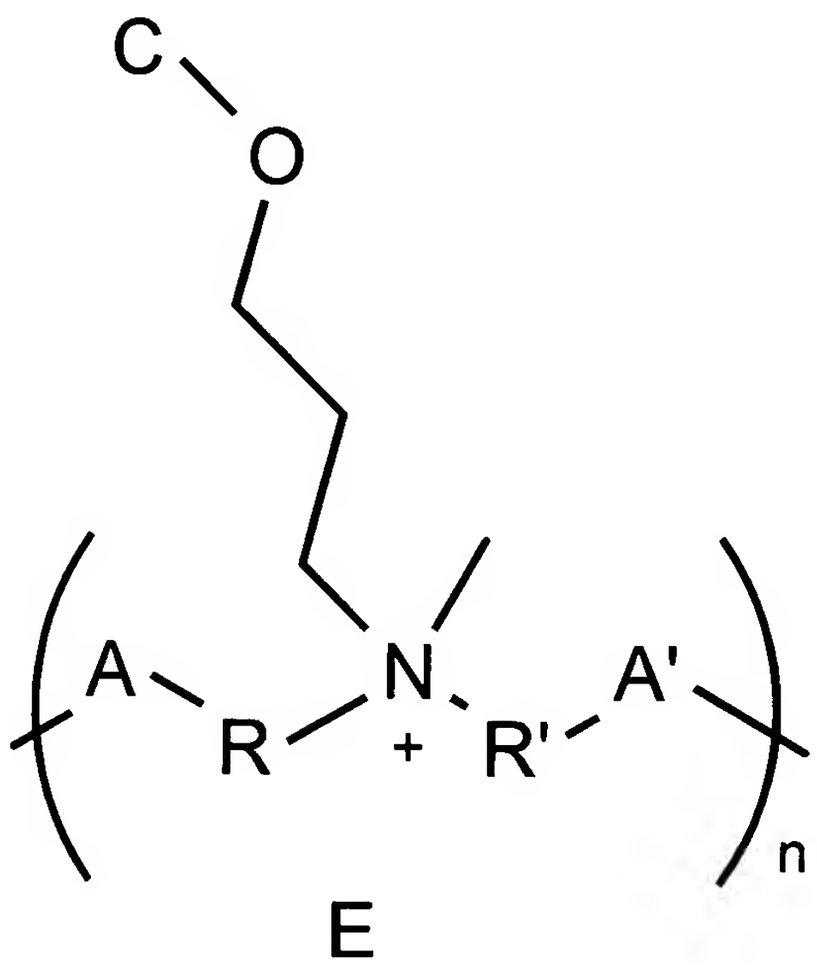
39. The polymer of claim 37 wherein the pendant fatty group has an occurrence rate of from 5 ppm to 100%.

40.A surface coating comprising a polymer according to claim 37.

41. A cast part comprising a polymer according to claim 37.

42. An extruded film or fiber comprising a polymer according to claim 37.

43. A polymer containing a fatty group pendant to the polymer backbone having the formula:



E

where E is an anion, C is a saturated or unsaturated alkyl group with between about 6 and 22 carbons and R and R'are the same or different and are independently chosen from the group containing linear or branched, saturated or unsaturated, alkyl, alkenyl, alkylamine, -NH-, -NR-, or arylalkyl with 0 to 10 carbon atoms and where A and A' are the same or different and are independently chosen from the group containing

[-(C=O)O-, -O(C=O)NH-, -HN(C=O)NH-, -O-, -OH, $-CH_2OH$, $-CH_3$, -(C=O)OH, $-O((C=O)CO)_m-$, $-O((C=O)C=C)_m-$, -N(C=O)-, $-O(C=O)C_6H_4(C=O)-$, -O(C=O)D-, -OC(C-OH)D-, $-(O-SiH_2)_m-$, $-(CH_2)_l-$] where D is linear or branched, saturated or unsaturated, alkyl, alkenyl, alkylamine or alkylaryl with 0 to 10 carbon atoms, and where l and m are integers greater than zero.

44. A polymer according to claim 43 wherein A and A' are the same or different and are independently chosen from the group containing [-(C=O)O-, -O(C=O)NH-, -HN(C=O)NH-, -O-, -OH, $-CH_2OH$, CH_3, -(C=O)OH, $-O((C=O)C=C)_m-$, -N(C=O)-, -

$(O\text{-}SiH_2)_m$-, -$(CH_2)_m$-] wherein m is an integer greater than zero.

45. The polymer of claim 43 wherein the bromo-nitro group has an occurrence rate of from 5 ppm to 100%.

46. A surface coating comprising a polymer according to claim 43.

47. A cast part comprising a polymer according to claim 43.

48. An extruded film or fiber comprising a polymer according to claim 43.

49. A polymer comprising a monomer having at least one pendant fatty group, either saturated or unsaturated, branched or linear from about 6 to 22 carbons wherein the polymer is the reaction product of a polyisocyanate with a polyol, the polyol or polyisocyanate containing the pendant fatty group.

50. A polymer comprising a monomer having at least one pendant fatty group, either saturated or unsaturated, branched or linear from about 6 to 22 carbons wherein the polymer is the reaction

product of a polyisocyanate with a polyamine, the polyamine or polyisocynate containing the pendant fatty group.

51. A polymer comprising a monomer having at least one pendant fatty group, either saturated or unsaturated, branched or linear from about 6 to 22 carbons wherein the polymer is the reaction product of a polycarboxcylic acid with a polyol, with the polyol or polycarboxcylic containing the pendant fatty group.